K-PLUS ENGINEERING

RESPONSE ACTION SUMMARY, SUBSURFACE INVESTIGATION, AND FUTURE PROPOSED ACTIONS

Olympic Oil
5000 W. 41st Street
Cicero, Illinois
Cook County

Prepared for:

Olympic Oil Company

April 16, 2015

CERTIFICATION

To the best of my knowledge and belief this investigation and evaluation have been performed in conformance with all applicable legal requirements and accepted practices prevailing in the environmental consulting industries. The personnel who performed the investigation are properly licensed and certified in accordance with the requirements of federal, state, and local laws, rules and regulations.

K-Plus Engineering, its officers, and its employees have no present or contemplated interest in the property or the parties involved. Our employment and compensation for preparing this report are not contingent upon any action or event resulting from the analyses, opinions, observations, or conclusions, in or from the use of, this report. The statements contained herein, on which our observations, opinions, and conclusions were based, are deemed factual. The reported analyses, opinions, observations, and conclusions are unbiased, professional, and limited only by the reported assumptions, qualifications, and conditions stated herein. All information in this report is from sources deemed to be reliable; however, no representation or warranty is made as to the accuracy thereof. If necessary, expert testimony and other legal appearances will be provided for a reasonable fee to be arranged.

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Sincerely,
K-PLUS ENGINEERING, LLC

Jessica Madsen

Daniel M. Caplaci

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

In response to the February 9, 2015 spill of anti-freeze at the Olympic Oil facility located at 5000 W. 41st Street in Cicero, Cook County, Illinois (Property), various response activities were immediately conducted to recover the spilled product and mitigate or eliminate adverse impacts to human health and the environment. All initial recovery efforts were completed by February 13, 2015. Additional response efforts as detailed below were completed by February 18, 2015.

A subsurface investigation of the secondary containment where the spilled product was captured as well as the area immediately adjacent the northeast corner of this containment area where a very small quantity of spilled product was discovered outside of the containment structure area was completed following the recovery and removal of the spilled product from both of these areas. The primary purpose of this investigation was to delineate the vertical and horizontal extents of the soil and shallow ground water that may have been adversely impacted by the spills. Subsurface delineation activities began at the Property on Wednesday, February 25, 2015 and were completed on Friday, March 6, 2015.

In order to evaluate the subsurface soils, a total of thirteen (13) soil borings were advanced to depth of up to 15 feet below ground surface (bgs) and three of the soil borings were converted to groundwater monitoring wells. Analytical testing of the soil and groundwater samples was for the spilled material, ethylene glycol.

This document outlines the spill response and recovery actions as well as the investigation activities that were completed and it presents a plan of additional response actions that will be completed at the site.

2.0 SUBJECT PROPERTY

The Subject Property is located on the north side of W. 41st Street, approximately 800 feet west of Cicero Avenue in Stickney, Illinois (Figure 1). It encompasses approximately 1,220 linear feet of frontage along the south bank of the Chicago Sanitary and Ship Canal. The area of the spill response, specific to this project, has been described as 0.427 acre area identified as the "secondary containment area" (Site) at the north side of the Subject Property. This area is located adjacent to the canal.

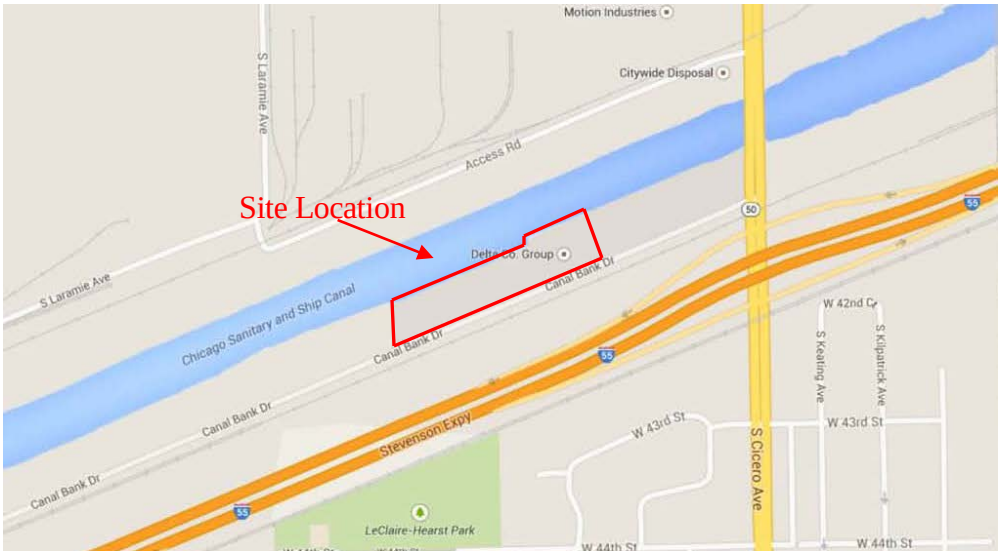


Figure 1 – Site Location Map

2.2 Site Features

The Subject Property measures approximately 8.67 acres (377,665) square feet (ft^2)) and is oriented in a northeast-southwest direction along the south side of the Chicago Sanitary and Ship Canal. The Subject Property was irregular in shape and currently developed with four buildings. The three-story main building is irregular in shape with a footprint that measured approximately 41,000 ft^2 with an attached 3,000 ft^2 tank farm (North Tank Farm), and contained office space, storage, and production lines, as well as mechanical rooms. A small, brick fire pump house building is found near the northwest corner of the property and used to pump canal water to fight fires. The other two buildings on Subject Property were the West Tank Farm which measured approximately 5,200 ft^2 and the Northwest Tank Farm which measured approximately 5,600 ft^2. Both tank farm buildings contain above ground storage tanks. Other features on the property include loading docks, outdoor tank farms with concrete or earthen berms, a concrete retaining wall at the north end of the property for extra protection to the canal, a truck loading rack and a truck unloading rack, a railroad spur and two railcar unloading areas, a barge unloading area, a water tower, an open courtyard area, and parking area.

The concrete retaining wall at the north end of the property, also described as the secondary containment area, is the focus of this report and referred to as the "Site".

The Parcel Identification Number (PIN) for the Subject Property was identified as: 19-04-200-018. The legal description for the property is as follows:

LOT 56 (EXCEPT THE EASTERLY 200 FEET) AND ALL OF LOT 58 (EXCEPT THE SOUTH EASTERLY 17 FEET OF LOTS 56 AND 58) IN SANITARY DISTRICT TRUSTEES SUBDIVISION OF RIGHT OF WAY FROM NORTH AND SOUTH CENTER LINE OF SECTION 30, TOWNSHIP 39 NORTH, RANGE 14, EAST OF THE THIRD PRINCIPAL MERIDIAN TO WILL COUNTY LINE IN COOK COUTNY, ILLINOIS.

2.3 Surrounding Area

The Subject Property was located in an industrial area. Specifically, the Subject Property was bounded on the **north** by the Chicago Sanitary and Ship Canal; on the **east** by Asphalt Materials, Inc.; on the **west** by vacant land followed by Tough Cuts Concrete Services, Inc. – a concrete crusher; and on the **south** by 41st Street, followed by the Burlington Northern & Santa Fe railroad right-of-way and then Interstate 55 (Figure 2). The spill containment area (Site) is highlighted in red below, with Subject Property boundaries indicated in yellow.

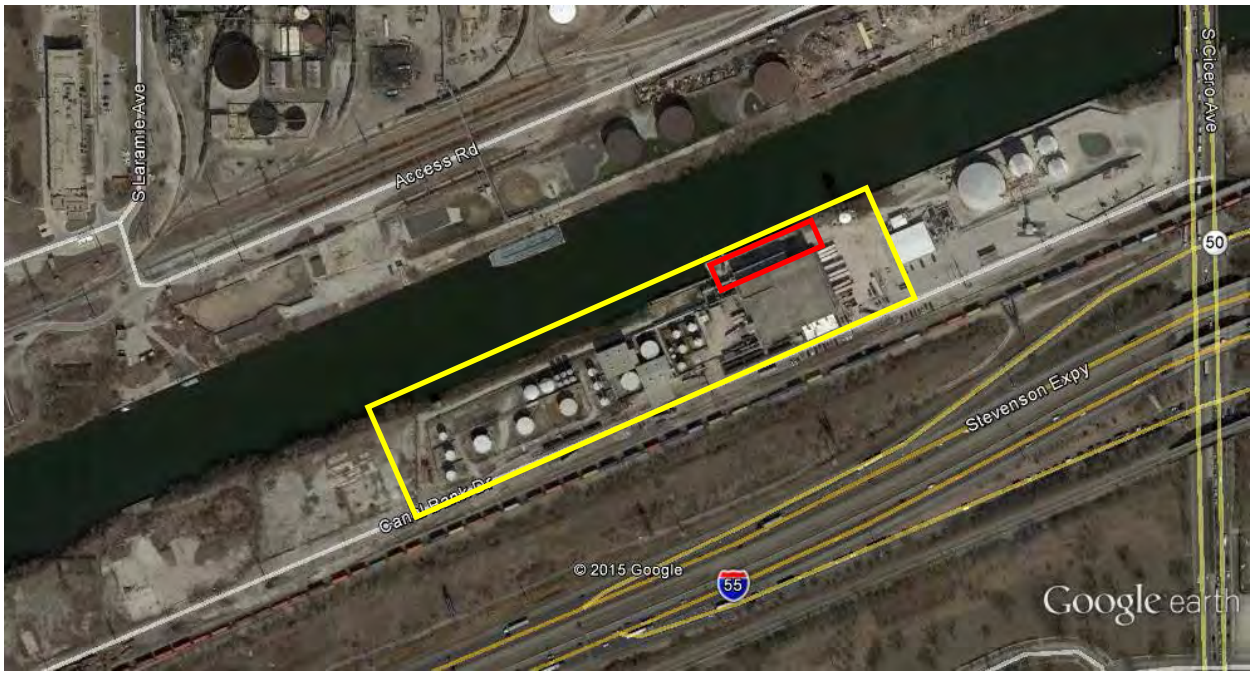


Figure 2 – Site and Surrounding Area (Google Earth 2013)

2.4 Topography

In general, the topography of the Subject Property was relatively flat however; the Site is located at the base of a steep slope that drops the elevation approximately 10 to 15 feet from the AST storage area to the secondary containment area or Site. The topography of the containment area slopes from north to south and from east to west and was noted to be approximately 15 to 20 feet above the surface of the Sanitary and Ship Canal. According to the United States Geological Survey 7.5 Minute Series Topographic Map of the Englewood, Illinois Quadrangle (1997), the Subject Property lies at a relative surface elevation of approximately 590 feet above mean sea level. Surficial, near surface, and regional groundwater is expected to flow in north/northwestly direction towards the Chicago Sanitary and Ship Canal located adjacent to the property (Figure 3).

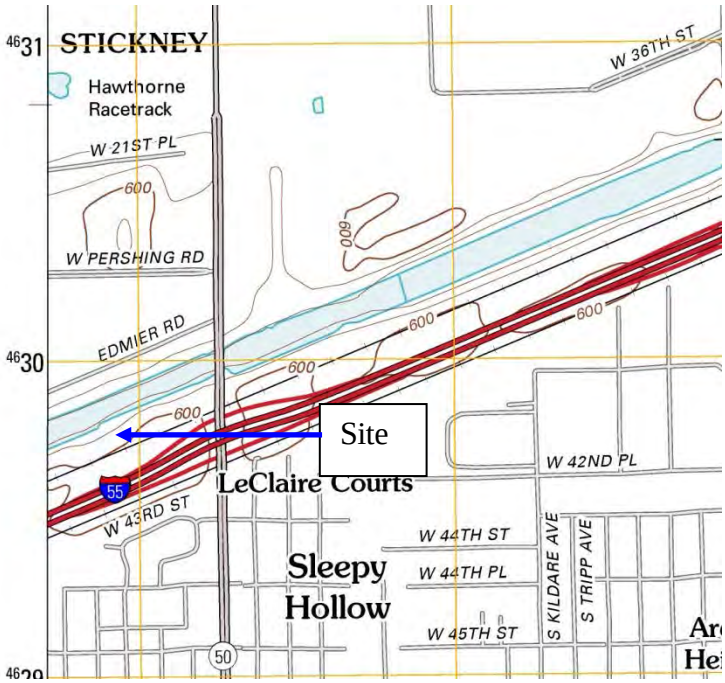


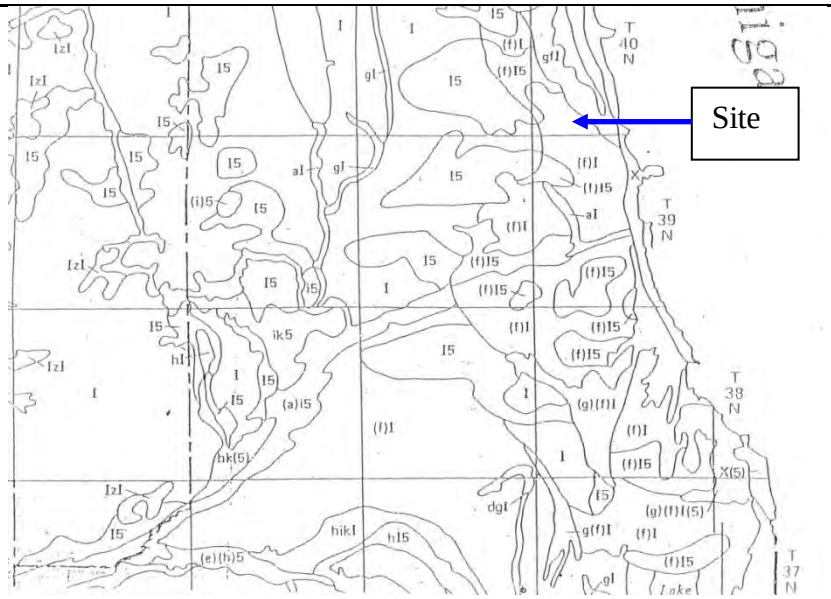
Figure 3 – Topographic Map (USGS, 1998)

2.5 Site Geology

Field observations made during the drilling activities indicated that the subsurface geology at the Subject Property was dominated by brown or gray clayey soils. The Sanitary and Ship Canal was built in the 1880s and much of the land on either side was where the excavated soils were placed, thus, the Subject Property and most all near surface material encountered is fill materials rather than "native" soil. Specifically, the investigator noted that soils directly below the surface were dominated with clay materials. At an average depth of approximately 6 to 8 feet a layer of soil that was characterized by more organic material was encountered. It is believed that this layer approximately 2 feet in thickness is likely to be the original land surface prior to the construction of the adjacent canal. This layer was more permeable and moisture was encountered here at several locations. Copies of the boring logs, including the geologic conditions and field observations made during the subsurface assessment, are included in Appendix 2.

In order to categorize and further assess the geologic conditions encountered at the Subject Property, various sources of information including geological maps constructed by the Illinois State Geological Survey were consulted. Specific geologic maps used during this investigation include *Stack-Unit Mapping of Geologic Materials in Illinois to a Depth of 15 Meters*; *Potential for Contamination of Shallow Aquifers by Land Burial of Municipal Wastes*; and *Potential for Contamination of Shallow Aquifers by Surface and Near-Surface Waste Disposal*.

The "Stack-Unit Map" reviewed was compiled by the Illinois State Geological Survey from information collected as a part of a geological mapping project sponsored by the Illinois Environmental Protection Agency. The Stack-Unit Map is a particular way of representing geological data to show the distribution of earth materials vertically from the surface to a specified depth as well as horizontally over a specified area. This map provides a foundation for interpretive maps for assessing potential for contamination from waste disposal sites; construction conditions; groundwater availability; and potential for mineral resources such as sand, gravel, dolomite, limestone, or near-surface deposits of coal. The map makes possible the evaluation of the potential uses of any material or sequence of materials.
According to the Surficial Geology of the Chicago Region, the geology at the Subject Property consists primarily of soils in the Carmi Member of the Equality Formation, which consists primarily of largely quiet-water lake sediments; dominantly well bedded silt, locally laminated and containing thin beds of clay; local lenses of sand and sandy gravel along beaches. This is corroborated by the Stack-Unit Map, these materials are present at depths greater than approximately 19.7 feet (6 m) thick (Figure 4).



Stack Unit Map – Figure 4

The following geological maps were also consulted: *Potential for Contamination of Shallow Aquifers by Land Burial of Municipal Wastes*; and *Potential for Contamination of Shallow Aquifers by Surface and Near-Surface Waste Disposal*. These maps were constructed by the Illinois State Geological Survey to describe and map geologic materials to a depth of 50 feet throughout the state. In these maps, various geologic materials were differentiated by thickness, texture, permeability, and stratigraphic position in order to rate their relative contamination potential for aquifers in any area of the state.

According to the Berg Map, the regional geologic materials in the area are designated as type as an "AX"-type soil (Figure 4). An "AX" classification is described as "alluvium, a mixture of gravel, sand, silt, and clay along streams, variable in composition and thickness". However, the area is very near another type of soil identified as "E" and described as "uniform, relatively impermeable silty or clayey till at least 50 feet thick; no evidence of interbedded sand and gravel." Also as previously noted, substantial fill materials were placed on the property during construction of the adjacent Sanitary and Ship Canal.

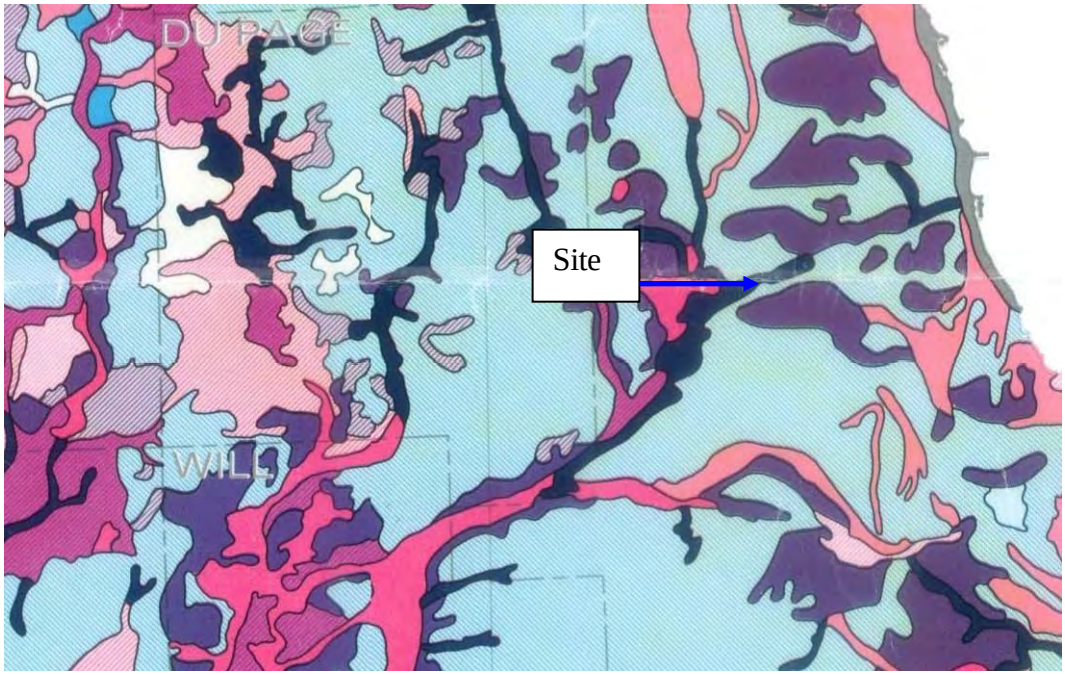


Figure 5 – Berg Map

Field observations of borings advanced at the Subject Property during this investigation revealed fill materials, clay materials, silt materials with varying amounts of intermixed rocks and sand seams to a depth of approximately 0-15 feet below grade level. The field observations were consistent with geological map findings.

3.0 SITE HISTORY

The Subject Property has been owned by the MWRD or its predecessors since 1893, and was leased to industrial facilities beginning in 1940. Development at the Subject Property appears to have begun with the current main building in 1943. The Subject Property appears to have conducted petroleum blending and packaging and/or other manufacturing operations since its original development. It was initially developed in 1943 by USICI as a bonded warehouse for the United States government and processing facility for alcohol-based antifreeze products used during and after World War II. The main building at the property appears to have been developed by USICI. No information was found for the next occupant, NDPC, who occupied the Subject Property from 1951 to 1957. It is believed that NDPC was a successor by merger to USICI and as such conducted similar operations at the facility. In 1957 the lease was transferred to MACTI, which later became Demert & Dougherty, Inc. It is assumed that MACTI conducted business similar to Demert & Dougherty, Inc., that is, contract packaging and blending services for local methanol manufacturers and manufacturing of creosote, paint brushes, engine additives, and hair spray. Since 1983, Olympic Oil has used the Subject Property as a blending and packaging facility for petroleum lubricating oil and antifreeze products.

4.0 SPILL DESCRIPTION

On February 8 and/or 9, 2015, approximately 40,000 gallons of a 50/50 mixture of ethylene glycol and water was spilled from a pipe into a secondary containment area at the Olympic Oil facility located at 5000 W. 41st Street in Cicero, Cook County, Illinois (Property). On February 9, 2015, operations to clean up the free product from the spill were initiated and those efforts were substantially completed on February 13, 2015. On February 11, 2015, a portion of the mixture was observed on the ground surface outside the secondary containment area. Recovery efforts were initiated and the amount of the mixture released outside the secondary containment was approximately 350 gallons, which is less than the reportable quantity for ethylene glycol. All of the free product mixture inside and outside of secondary containment was removed by February 13, 2015.

Also, on February 9, 2015, approximately 10,000 gallons of a 50/50 mixture of ethylene glycol and water was spilled from a pipe connection at an above-ground tank into its secondary containment area. None of this material escaped secondary containment. Between February 9 and 13, all this free product was removed from the tank's secondary containment.

5.0 SPILL RESPONSE ACTIONS

Between February 9 and February 13, 2015 approximately 75,000 gallons of liquid were removed from the two containment areas and transported to off-site treatment facilities. Included with the 75,000 gallons was approximately 350 gallons of liquid that were collected from adjacent to, but outside of, the northeast corner of the containment area. Additional actions to address the residual impacts of the spill included the removal and off-site disposal of surficial soil from the containment area on February 18, 2015. This work was completed in order to remove the softer soil that was holding the spilled product immediately above the more dense clay material in the containment area. Also following the discovery of ethylene glycol in MW10 inside of the containment area, four 8 inch PVC recovery wells were installed inside of the containment area in an effort to capture any residual product from perched water approximately 6 to 8 feet below grade where borings identified a more permeable zone of soil characterized by organics and silty soil It is likely that this was the original surface layer on foil on the property prior to the construction of the adjacent canal. Each recovery well was fitted with a pump and a controller to enable continuous as well as regular pumping to remove any liquid that might accumulate in the recovery well. The recovery wells and pumps were all installed between February 27, 2015 and March 3, 2015. All four recovery wells are still operational as of the date of this report.

All recovery wells were advanced with an 8 inch diameter auger probe to a depth of approximately fifteen feet below grade. Six-inch diameter recovery wells were then installed in each of the four locations with a 10 foot PVC screen and a 10 foot PVC riser. These depths were chosen in order to ensure that the screen would intersect any potential water bearing zones. After each well was set, the screens were packed with sand and sealed with bentonite all the way to the ground surface. Individual pumps and timers were installed in each of the four recovery wells so that at a minimum, each would operate for several minutes each hour to pump any possible liquid from the well to a 55-gallon drum that was set adjacent to each of the four recovery wells.

6.0 SUBSURFACE INVESTIGATION

In response to the February 9, 2015 spill, a Subsurface Investigation of the secondary area containment was conducted following the recovery and removal of the spilled product. The primary purpose of this investigation was to delineate the vertical and horizontal extents of the soil and shallow ground water that may have been adversely impacted by the spill. Initial subsurface delineation activities began at the Property on Wednesday, February 25, 2015 and were completed on Friday, March 6, 2015. Follow-up ground water sampling was completed on Wednesday, April 15, 2015.

In order to evaluate the subsurface soils, a total of thirteen (13) soil borings were advanced to a depths of up to 15 feet below ground surface (bgs) and three of the soil borings were converted to groundwater monitoring wells. Analytical testing of the soil and groundwater samples was for ethylene glycol, the primary constituent of the product that was spilled. This section outlines the investigation activities that were completed.

The weather conditions on Wednesday, February 25, 2015 were overcast and began with temperatures of approximately -13 degrees Fahrenheit (°F) and rose to approximately 0 degrees °F throughout the day. The weather conditions on Friday, March 6, 2015 were sunny and began with temperatures of approximately 10 degrees °F and rose to approximately 20 throughout the day. As a tool in preparing this report and documenting the conditions encountered at the property, copies of all supporting documents that were relied upon during this project have also been included as appendices in this report.

All borings were completed under the direct supervision of an experienced geologist, engineer, or environmental scientist inspector who was on-site during all field work to coordinate the drillers, choose appropriate environmental boring locations and sample depths, collect and screen soil samples, and log the geologic characteristics of each borehole. All drilling work was performed in accordance with applicable provisions of the American Society of Testing Materials (ASTM) standards for environmental and geotechnical drilling, which specify the techniques used for sampling and drilling.

6.1 Drilling

In general, drilling was completed with a Geoprobe drill rig that could be converted to auger probe and equipped with a Macro-Core® continuous-core sampler. The Geoprobe uses both static and dynamic percussion forces to advance various sampling apparatus to retrieve core samples. The Macro-Core® is a solid barrel, open steel tube that was five feet long, has an inside diameter of 2¼ inches, and is equipped with a five foot plastic liner for sample collection. The use of sample liners greatly reduces the chance of cross contamination between samples and provides better sample recovery. The details of each boring were recorded on separate logs which contain the following information for each borehole:

- Lithology description for each change in stratum, and the level of each change;
- relative moisture content of each sample interval;
- length of sample recovery from every five feet of Macro-Core® sample;
- presence of any water and the level at which it was encountered;
- presence of contamination by field screening; and
- depth of the sample collection.

6.2 Field Screening and Sample Selection

In accordance with ASTM standards and in order to identify soil contamination, the on-site geologist determined the geologic lithology, and constructed a profile of each soil column from the continuous soil samples which were collected using a five foot Macro-Core® sampler at five foot intervals from surface level to the boring terminus. Undisturbed soil samples from each Macro-Core® were visually classified in the field according to the Unified Soil Classification System (USCS). The characteristics of each sample such as color, odor, texture, relative moisture, sediment type, or disturbance was immediately recorded in the test boring log.

All soil samples recovered during the fieldwork were field screened for the presence of contamination by visual and olfactory assessment. All field screening observations were recorded on the respective boring logs along with the geologic data.

During the fieldwork, all individual Macro-Core® soil samples were immediately placed in sample containers and were labeled to identify the boring location, sample depth, and sample number. Generally, the soil sample from each boring which exhibits the greatest degree of contamination in the field is submitted for laboratory analysis. This methodology is useful when attempting to identify and characterize contamination in a specific area. In certain instances, multiple soil samples may be collected in order to better delineate the vertical extent of contamination. The first sample is collected from the most contaminated material in order to characterize the contamination and determine the concentrations of the specific contaminants, while the other samples are collected from other depths to assist in approximating the vertical extent of the contamination.

6.3 Sample Preservation and Laboratory Analysis

At least one soil sample from each soil boring was selected for laboratory testing. Soil was packed "air tight" and placed into specially prepared glass sample jars equipped with Teflon lined lids. All samples were immediately preserved in a cooler until receipt by the laboratory for analysis. All samples were transferred to STAT Analysis Corporation (STAT) located in Chicago, Illinois under strict chain-of-custody procedures for analysis of ethylene glycol according to standard United States Environmental Protection Agency (U.S. EPA) methodologies. All analytical testing was

performed in accordance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP). All samples were analyzed within established holding times, all quality control testing met U.S. EPA or laboratory criteria, except where noted in the case narrative or analytical report. No data were qualified by the laboratory. All samples were analyzed for the requested parameters; there is no missing data. Where any data may have been questionable during review and evaluation, the laboratory was requested to check the data, and if necessary, re-analyze the sample to ensure that the data were accurate. Data meets quality control criteria.

6.4 Decontamination

In order to ensure that no cross-contamination between soil sampling occurs, all non-dedicated sampling equipment was decontaminated after collection of each sample. Sampling equipment was scrubbed with a brush to remove loose material and then washed thoroughly with a laboratory grade detergent and water to remove all particulate matter and surface film. After washing, each piece was rinsed with clean tap water. Dedicated sampling equipment such as plastic scoops, spoons and latex gloves were disposed of after the handling of each sample was complete. Field equipment such as the water level, pH meter and temperature/conductivity meter were rinsed with distilled water between samples.

7.0 SOIL INVESTIGATION FINDINGS

In order to evaluate the subsurface soils, a total of thirteen (13) soil borings were advanced to a depth of 1-15 feet bgs at selected areas of the Site. Soil borings (KP1 through KP13) were performed to delineate negative impacts to the subsurface soils of the Site as a result of the antifreeze spill.

7.1 Field Observations

During the field activities, each borehole was evaluated for contaminants using visual and olfactory methods. However, olfactory observations did not note significant evidence of contamination.

The soil borings advanced at the Site revealed subsurface soils that were dominated by soft to firm clayey soils with sand/silt and gravel seams noted in non-continuous areas of the property. Detailed boring logs documenting geologic notes and observations are included in Appendix 2.

7.2 Soil Analytical Results

At least one (1) soil sample was collected from each soil boring. In general, samples were taken from predetermined intervals. For vertical delineation purposes, soil samples labeled "A" were generally collected from the shallow surface. Soil samples labeled "B" were generally collected from the saturated layer on the Site generally from a mid-range 6-10 feet bgs. And soil samples labeled "C" were collected from the boring terminus 14-15 feet bgs.

Soil borings KP5, KP6, KP8, KP9, and KP11 were advanced on Wednesday, February 25, 2015. Soil borings KP5, KP8, and KP11 were converted to groundwater monitoring wells by auger drilling after the initial geoprobe advancement and environmental soil sampling.

Soil borings KP1-KP4 were advanced on Friday, March 6, 2015. Soil borings were completed in the area between the Site and the Sanitary and Ship Canal, outside of the secondary containment area. Borings KP1through KP4 were advanced by hand auger. Depth of the samples was limited to 4 feet below grade because concrete obstructions related to the retaining wall foundation system were encountered.

Soil borings KP7, KP10, KP12 and KP13 were advanced on Friday, March 6, 2015. These soil borings were completed with the track-mounted geoprobe.

Ethylene Glycol Remediation Objectives cannot be found within any USEPA guidance nor within the Illinois EPA's Tier I Soil Remediation Objectives (SROs) identified in Section 35 Illinois Administrative Code (IAC) Part 742 – Tiered Approach to Corrective Action Objectives (TACO).

For these reasons, all sample concentrations identified at the Site were compared to objectives found in the IEPA published "Common Contaminants Not Found in TACO".

7.2.1 Tier 1 Ingestion Exposure Route

Soil analytical data available from the Site was compared to the available Soil Remediation Objectives (SROs) for the ingestion exposure pathway. This comparison indicated that no concentrations were found above residential or I/C ingestion SROs.

Applicable IEPA TACO Objectives

CHEMICAL NAME	ETHYLENE GLYCOL
CAS No.	107-21-1
I/C INGESTION	1,000,000
CONST. WORKER INGESTION	160,000

7.2.2 Tier I Inhalation Exposure Route

Soil analytical data for the Site were compared to the SROs for the soil inhalation exposure pathway. This comparison indicated that no concentrations were found above residential or I/C inhalation SROs.

Applicable IEPA TACO Objectives

CHEMICAL NAME	ETHYLENE GLYCOL
CAS No.	107-21-1
I/C INHALATION	86,000
CONST. WORKER INHALATION	5,600

7.2.3 Tier I Soil Component of the Groundwater Ingestion Exposure Route

Soil analytical results for the Site were compared to SROs for the Soil Component of the Groundwater Ingestion Exposure Route (SCGIER). This comparison indicated concentrations found above Class I SCGIER and the Class II SCGIER. Shallow samples were in all cases the highest concentration. In each boring location, a sample with non-detect results was obtained from the bottom of the boring, except for KP1A for which only one sample was obtained before refusal. The following table presents a summary of all positive ethylene glycol results and compares the findings to the applicable TACO objectives.

Investigation Results Compared to Migration to GW Objectives

Constituent of Concern	Soil Boring / Sampling Location	Sample Depth (ft.)	Maximum Detected Concentration (mg/kg)	Class I SCGIER Objectives (mg/kg)	Class II SCGIER Objectives (mg/kg)
Ethylene Glycol	S03	0-1	**830**	56	56
Ethylene Glycol	OA-SS-04-0225	0-1	**4,500**	56	56
Ethylene Glycol	OA-SG-0212-01	0-1	**580**	56	56
Ethylene Glycol	OA-SG-0212-02	0-1	**380**	56	56
Ethylene Glycol	KP1A	0-1	**78**	56	56
Ethylene Glycol	KP2A	0-1	**90**	56	56
Ethylene Glycol	KP7A	0-1	**520**	56	56
Ethylene Glycol	KP10A	0-1	**400**	56	56
Ethylene Glycol	KP12A	0-1	**460**	56	56
Ethylene Glycol	KP12B	5-6	**100**	56	56
Ethylene Glycol	KP13A	0-1	**690**	56	56

The top four lines of the table describe soil sampling results collected from the ground surface. The surface samples were collected as part of the investigative/clean-up activities, in order to attempt to identify surface areas that may have been impacted by the spill. The remainder of the table describes subsurface samples collected during the drilling activities.

8.0 GROUND WATER INVESTIGATION FINDINGS

As noted previously, three of the borings that were completed inside of the containment area at the site were finished as monitoring wells. All wells were sampled and tested for only ethylene glycol. Like the soil data, all ground water data was compared to objectives identified in the IEPA published "Common Contaminants Not Found in TACO". Tables of the soil laboratory analytical results are presented in Appendix 3 and laboratory data sheets are found in Appendix 4.

8.1 Comparison to TACO Ground Water Objectives

Specifically, groundwater analytical results for the Site were compared to Groundwater Remediation Objectives (GROs). The following table outlines the groundwater analysis results.

Investigation Results Compared to GW Remediation Objectives

Constituent of Concern	Well No./ Sampling Location	Date	Maximum Detected Concentration (mg/kg)	Class I Objectives (mg/kg)	Class II Objectives (mg/kg)
Ethylene Glycol[1]	MW10/S1 (initial)	2/19/15	**23,000**	14	14
Ethylene Glycol[2]	MW10/S4 (after purge)	2/19/15	**9,100**	14	14
Ethylene Glycol	MW10	2/25/15	**4,200**	14	14
Ethylene Glycol	KP8/KP9W	2/25/15	**360**	14	14
Ethylene Glycol	KP5/MWA	2/26/15	**480**	14	14
Ethylene Glycol	KP11	2/26/15	**---**	14	14

Notes:

1. MW10/S1 (initial) was collected from groundwater monitoring well 10 before purging the well. IEPA sampling methods detail that groundwater monitoring wells should be purged, by the removal of approximately three well volumes, before samples are collected. In this case, a sample was collected before (initial) and after the purge (after purge).

2. MW10/S4 was collected after the removal of approximately three well volumes.

3. KP11 never produced any water. It was allowed to stabilize and charge for 24 hours, 48 hours, even 72 hours yet no measurable water was observed and no sample was collected.

9.0 FUTURE ACTIONS

The following is a list of future actions that may need to be completed at the site in order to complete the response to the February 2015 anti-freeze spill. As noted in the prior section, this list of future actions may need to be modified or adjusted pending receipt and review of the April 15, 2015 ground water samples from the monitoring wells inside of the containment area.

9.1 Soil Removal

Additional surface soil will be excavated from the vicinity of the soil sample locations with sample results that exceeded the TACO SRO for SCGIER (migration to groundwater) thresholds and the area at the base of the incline that leads up to the courtyard. This is an area where product seeps have been identified subsequent to the initial response and recovery actions in February. This soft wet soil will be excavated and transported off site for disposal as a non-hazardous waste. Following this soil removal, additional surface samples will be collected and tested to determine the effectiveness of this removal.

9.2 Recovery Well Pump Removal

To date, only Recovery Well No. 1 at the east end of the containment area and Recovery Well No. 2 immediately to the west of Recovery Well No. 1. have actually recovered any product. As of this date and after over 45 days, no product has been recovered from the two remaining wells that were installed, Recovery Well No. 3 just west of the catch basin and Recovery Well No. 4 at the west end of the containment area. For this reason, we propose to remove the automated pumps from these two locations, subject to approval by U.S. EPA. So long as there is any product being removed from Recovery Wells No. 1 and 2, we will continue to check Recovery Wells No. 3 and 4 while on site.

Further adjustments to the operation of Recovery Wells 1 and 2 will be evaluated weekly based on the rate of recovery from the wells, groundwater sample results and the status of other removal actions at the Site. We will notify U.S. EPA in advance of any further adjustments in the operation of those wells.

10.0 CONCLUSIONS

The spill response, recovery, and investigation activities that were completed in and adjacent to the secondary containment area effectively mitigated any significant threat to human health and the environment following the February spills at the Olympic Oil facility. As a result of these actions and as documented by the investigation activities that have been completed at the site, no imminent or substantial endangerment exists as a result of the February anti-freeze spills at the Olympic Oil facility in Cicero, Illinois.

The investigation activities show that any residual impacts of ethylene glycol in the containment area are restricted to the uppermost surface layers of soil at the site. Soil samples analyzed from deep samples (15 feet) were all identified as non-detect for ethylene glycol. Soil samples analyzed from the mid-layer (6-10') were also identified as non-detect for ethylene glycol in all cases except at KP12B where a concentration of 100ppm was identified.

The investigation findings in conjunction with the recovery well findings clearly show that there is not any true shallow ground water at the site. In general, no ground water was found in monitoring wells or recovery wells unless the wells were installed in close proximity to areas that were previously disturbed during construction of sewer lines and other subsurface structures. This finding clearly shows that the site is generally comprised of tight clay that does not generally hold any ground water and normally cannot produce any ground water when a well is installed. Recovery Well No. 1 which has produced the most water was installed in the east end of the containment area in close proximity to such disturbed soil. Recovery Well No. 2 was installed near the catch basin and line to the valve pit. The other two recovery wells west of the catch basin were installed in areas with limited or no such prior disturbances. These two recovery wells did not produce any liquid.

The investigation also shows that historic monitoring well MW10 that was in place in the containment area when the spill occurred appears to have allowed some of the product to migrate vertically. This is why samples from this well have contained higher levels of ethylene glycol than the other wells in the containment area. Considering this, the fact that the nearby and "down gradient" Recover Well No. 2 has produced virtually no water clearly demonstrates that there is virtually no horizontal migration.

APPENDIX 1

DETAILED SITE FIGURES

K-PLUS ENGINEERING, LLC
15 Spinning Wheel Rd . SUITE 320 . Hinsdale, IL 60521
P 312.207.1600 . F 312.831.2191 . WWW.KPLUS.COM

Proposed Boring/Well Location Map

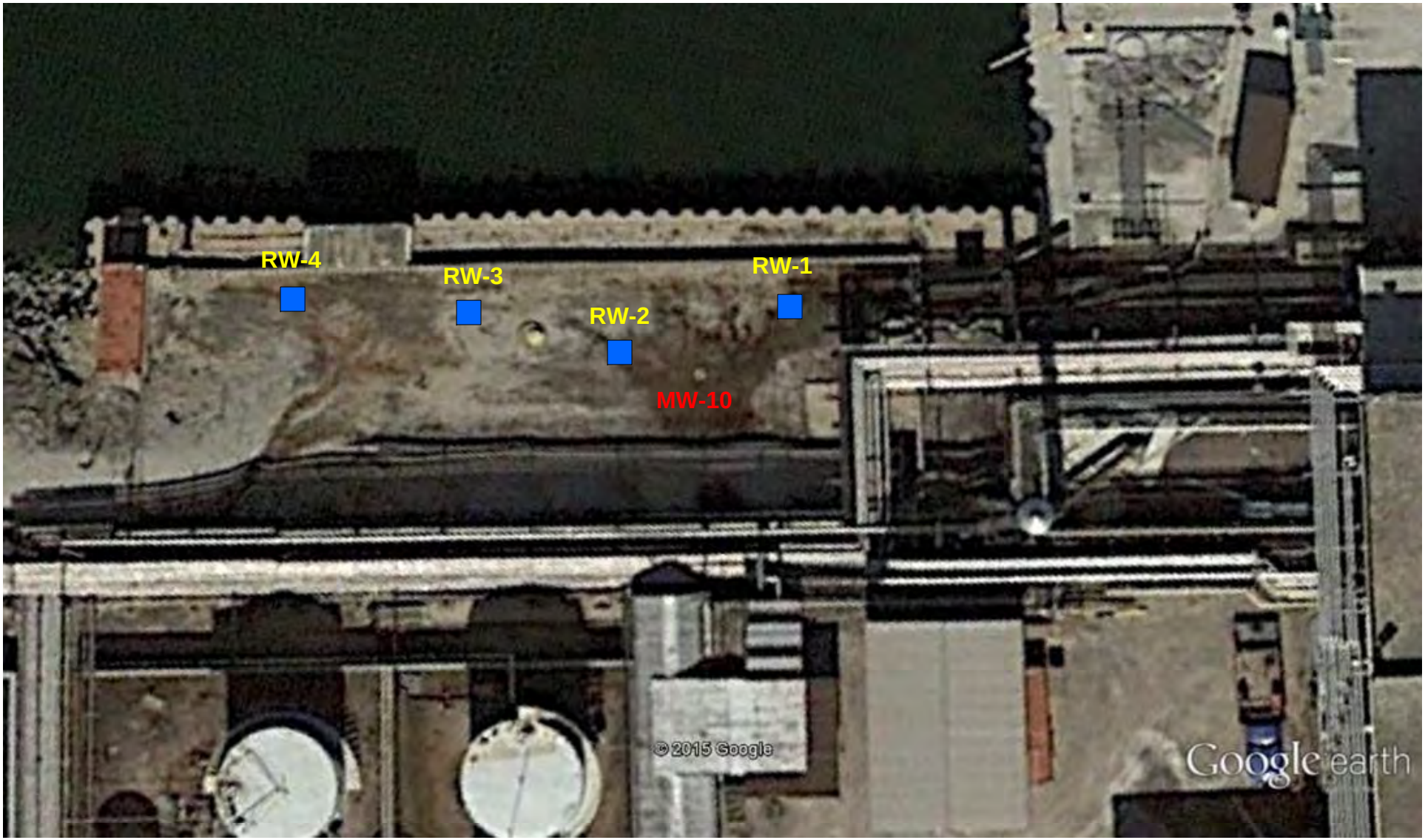
Olympic Oil

Cicero, Illinois

Date: February 23, 2015

Scale: approximate

Document No. 24163-VSO-01



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Recovery Well Location Map

Olympic Oil

Cicero, Illinois

Date: February 27, 2015

Scale: approximate

Document No. 24163-VSO-02b

APPENDIX 2

BORING LOGS

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER					
KP1					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT	SAMPLING METHOD	START - FINISH DATE	
hand-probe		2"	5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP1A	10		no odors		15" clay/gravel/sandy mix EOB @ 15" (met with refusal)		
4								
6								
8								
10								
12								
14								
16								
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
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312.207.1600

BORING / WELL NUMBER					
KP2					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD	SIZE / TYPE OF BIT		SAMPLING METHOD	START - FINISH DATE	
hand-probe	2"		5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP2A	50		no odors		dark brown clay asphalt stiff brown clay		
4								
6	KP2B	50		no odors		soft gray clay		
8						EOB @ 7' (met with refusal)		
10								
12								
14								
16								
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
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Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER					
KP3					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT	SAMPLING METHOD	START - FINISH DATE	
hand-probe		2"	5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP3A	10				soft gray silty clay EOB @ 1' (met with refusal)		
4								
6								
8								
10								
12								
14								
16								
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
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312.207.1600

BORING / WELL NUMBER					
KP4					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT	SAMPLING METHOD	START - FINISH DATE	
hand-probe		2"	5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP4A	10		no odors		8" soft gray silty clay EOB @ 8" (met with refusal)		
4								
6								
8								
10								
12								
14								
16								
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
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Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER							
KP5							
PROJECT NUMBER	PROJECT NAME			PROJECT LOCATION			
24163	Olympic Oil			5000 41st Street, Cicero, IL			
GEOLOGIST				DRILLING CONTRACTOR			
Jessica Madsen				C.S. Drilling			
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT		SAMPLING METHOD		START - FINISH DATE	
track-mounted Geoprobe/auger		2"		5' Macro Core Sample		2/25/15 - 2/25/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN:	TYPE	MATERIAL	LENGTH	DIAMETER	SLOT SIZE
Yes	2"	slotted		PVC	10'	2"	
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING			TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP5A (0-5')	90		no odors		brown sand, fine		
4						soft gray Clay		
6		90		no odors		stiff gray Clay - water		
8	KP5B (5-10')							
10								
12	KP5C (10-15')	90		no odors		stiff gray Clay		
14								
16						EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER					
KP6					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD	SIZE / TYPE OF BIT		SAMPLING METHOD	START - FINISH DATE	
track-mounted Geoprobe/auger	2"		5' Macro Core Sample	2/25/15 - 2/25/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
NO					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP6A (0-5')	95		no odors		brown sand silty gray Clay		
4						stiff gray Clay		
6		95		no odors		3" of white rock/shale stiff gray Clay		
8	KP6B (5-10')							
10						EOB @ 10'		
12								
14								
16								
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
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312.207.1600

BORING / WELL NUMBER					
KP7					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD	SIZE / TYPE OF BIT		SAMPLING METHOD	START - FINISH DATE	
track-mounted Geoprobe/auger	2"		5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
0	KP7A	100		no odors		stiff brown/gray clay		
2						5" brown sand (very fine)		
						stiff brown/gray clay		
4						soft brown/gray clay		
6	KP7B	50		no odors		(original boring met with refusal at 7' moved over 1' and reset boring)		
8						soft brown/gray clay with rock intermixed		
10		100		no odors		stiff gray clay		
12								
14	KP7C							
16						EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER								
KP8								
PROJECT NUMBER	PROJECT NAME			PROJECT LOCATION				
24163	Olympic Oil			5000 41st Street, Cicero, IL				
GEOLOGIST				DRILLING CONTRACTOR				
Jessica Madsen				C.S. Drilling				
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT		SAMPLING METHOD			START - FINISH DATE	
track-mounted Geoprobe/auger		2"		5' Macro Core Sample			2/25/15 - 2/25/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN:	TYPE	MATERIAL	LENGTH		DIAMETER	SLOT SIZE
Yes	2"	slotted		PVC	10'		2"	
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING			TOP & BOTTOM OF SCREEN		GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP8A (0-5')	100		no odors		topsoil w/ stiff brown Clay		
4						stiff gray Clay		
						3" white rock, shale		
6						stiff gray Clay		
						soft gray Clay - water		
8	KP8B (5-10')	90		no odors			KP9w	
10						3" gravel w/fines in Clay		
						stiff gray Clay		
12	KP8C (10-15')	100		no odors		soft gray Clay - water		
						stiff gray Clay		
14						3" gravel w/fines in Clay		
						stiff gray Clay		
16						EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
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312.207.1600

BORING / WELL NUMBER					
KP9					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD	SIZE / TYPE OF BIT		SAMPLING METHOD	START - FINISH DATE	
track-mounted Geoprobe/auger	2"		5' Macro Core Sample	2/25/15 - 2/25/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
NO					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP9A (0-5')	60		no odors		5" brown sand, fine		
4						stiff gray Clay		
6		60		no odors		5" gray sand, fine with water evident		
8	KP9B (5-10')					soft gray Clay		
10								
12	KP9C (10-15')	60		no odors		stiff gray Clay		
14								
16						EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
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Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER					
KP10					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT	SAMPLING METHOD		START - FINISH DATE
track-mounted Geoprobe/auger		2"	5' Macro Core Sample		3/6/15 - 3/6/15
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING		TOP & BOTTOM OF SCREEN	GW SURFACE / DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP10A	90		no odors		stiff gray clay brown sand with rocks intermixed		
4						stiff brown clay with rocks intermixed		
6	KP10B	90		no odors		soft brown clay with sand and fines intermixed		
8								
10						stiff brown clay		
12		90		no odors		soft brown clay		
14						3" sand seam (medium fine) stiff brown clay		
16	KP10C					EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER								
KP11								
PROJECT NUMBER	PROJECT NAME			PROJECT LOCATION				
24163	Olympic Oil			5000 41st Street, Cicero, IL				
GEOLOGIST				DRILLING CONTRACTOR				
Jessica Madsen				C.S. Drilling				
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT		SAMPLING METHOD			START - FINISH DATE	
track-mounted Geoprobe/auger		2"		5' Macro Core Sample			2/25/15 - 2/25/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN:	TYPE	MATERIAL	LENGTH		DIAMETER	SLOT SIZE
Yes	2"	slotted		PVC	10'		2"	
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING			TOP & BOTTOM OF SCREEN		GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2		90		no odors		stiff gray Clay		
4	KP11A (0-5')					gravel seam, no fines		
6		90		no odors		stiff gray Clay soft gray Clay - water		
8	KP11B (5-10')							
10								
12	KP11C (10-15')	90		no odors		stiff gray Clay		
14								
16						EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
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BORING / WELL NUMBER					
KP12					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD	SIZE / TYPE OF BIT		SAMPLING METHOD	START - FINISH DATE	
track-mounted Geoprobe/auger	2"		5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING		TOP & BOTTOM OF SCREEN	GW SURFACE / DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP12A	80		no odors		stiff brown clay with sand intermixed		
4						4" white gravel		
6	KP12B	50		no odors		soft gray clay soft gray clay - wet		
8								
10						stiff gray clay		
12		90		no odors		soft gray clay - wet		
14	KP12C					stiff gray clay		
16						EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

TEST BORING LOG

Suite 320
15 Spinning Wheel Drive
Hinsdale, Illinois 60521
312.207.1600

BORING / WELL NUMBER					
KP13					
PROJECT NUMBER	PROJECT NAME		PROJECT LOCATION		
24163	Olympic Oil		5000 41st Street, Cicero, IL		
GEOLOGIST			DRILLING CONTRACTOR		
Jessica Madsen			C.S. Drilling		
DRILLING EQUIPMENT / METHOD		SIZE / TYPE OF BIT	SAMPLING METHOD	START - FINISH DATE	
track-mounted Geoprobe/auger		2"	5' Macro Core Sample	3/6/15 - 3/6/15	
WELL INSTALLED?	CASING MAT. / DIAMETER	SCREEN: TYPE	MATERIAL	LENGTH	DIAMETER / SLOT SIZE
No					
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM OF SCREEN	GW SURFACE	DATE

DEPTH	LAB SAMPLE	RECOVERY (%)	PID (ppm)	REMARKS	UNIFIED CLASS.	DESCRIPTION	GEO.	WELL CONST.
2	KP13A	90		no odors		sand and gravel stiff brown clay		
4								
6		90		no odors		sandy/silty clay soft gray clay		
8								
10	KP13B					sand/silty clayey seam stiff gray clay		
12		100		no odors		soft gray clay		
14						gray gravel/shale seam		
16	KP13C					stiff gray clay EOB @ 15'		
18								
20								

CONCRETE SAND RISER
FILL SILT SCREEN
CLAY WATER DEPTH

APPENDIX 3

ANALYTICAL RESULT TABLES

	Analyte:	Percent Moisture (wt%)	Ethylene Glycol (mg/Kg-dry)	Ethylene Glycol (mg/L)
	Test Method:	D2974	SW8015	SW8015
Client Sample ID:	*Date Collected:*			
OA-SG-0212-01	02/11/2015 15:15	18.0	580	
OA-SG-0212-02	02/11/2015 15:47	23.4	380	
OA-SG-0211-01	02/11/2015 11:30			<10
OA-SG-0213-01	02/11/2015 15:47			<10
OA-SG-0213-02	02/11/2015 15:47			<10
S01	02/19/2015 13:00			23,000
S01 - Duplicate	02/19/2015 13:00			11,000
S02	02/19/2015 13:30			43,000
S03	02/19/2015 13:30	19.0	830	
S04	02/19/2015 13:45			9,100
KP9A	2/25/2015	19.4	<0.41	
KP9B	2/25/2015	18.7	11	
KP9C	2/25/2015	16.4	<0.39	
KP8A	2/25/2015	17.9	<0.40	
KP8B	2/25/2015	15.9	<0.39	
KP8C	2/25/2015	17.0	<0.40	
KP11A	2/25/2015	17.8	3.3	
KP11B	2/25/2015	16.9	<0.40	
KP11C	2/25/2015	16.3	<0.39	
OA-SS-04-0225	2/25/2015	13.6	4500	
OA-SW-02-0225	2/25/2015			<10
OA-SW-01-0225	2/25/2015			<10
MW10	2/25/2015			4200
KP5A	2/25/2015	16.0	4.1	
KP5B	2/25/2015	16.5	<0.39	
KP5C	2/25/2015	15.0	<0.38	
KP5 MWA	2/26/2015			480
KP6A	2/25/2015	17.6	<0.40	
KP6B	2/25/2015	15.8	<0.39	
KP8 - KP9W	2/25/2015			360
KP10A	3/6/2015	14.2	400	
KP10B	3/6/2015	17.4	<0.39	
KP10C	3/6/2015	15.4	<0.39	
KP7A	3/6/2015	14.9	520	
KP7B	3/6/2015	17.0	<0.39	
KP7C	3/6/2015	17.2	<0.40	
KP12A	3/6/2015	16.7	460	
KP12B	3/6/2015	19.7	100	
KP12C	3/6/2015	15.7	<0.39	
KP13A	3/6/2015	9.1	690	
KP13B	3/6/2015	16.9	<0.40	
KP13C	3/6/2015	10.3	2.2	
KP2A	3/6/2015	17.3	90	
KP2B	3/6/2015	17.5	<0.40	
KP3A	3/6/2015	25.2	<0.44	
KP4A	3/6/2015	19.1	2.8	
KP1A	3/6/2015	19.6	78	

Applicable IEPA TACO Objectives

CHEMICAL NAME	ETHYLENE GLYCOL
CAS No.	107-21-1
RESIDENTIAL INGESTION	160,000
RESIDENTIAL INHALATION	54,000
I/C INGESTION	1,000,000
I/C INHALATION	86,000
CONST. WORKER INGESTION	160,000
CONST. WORKER INHALATION	5,600
MIGRATION TO CLASS 1 GW	56
MIGRATION TO CLASS 2 GW	56
C_{sat} (Surface)	100,000
C_{sat} (Subsurface)	200,000
GW (CLASS 1)	14
GW (CLASS 2)	14

APPENDIX 4

LABORATORY DATA SHEETS

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

March 09, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15030162 Revision 0

RE: 24163, Olympia Oil, 5000 W. 41st Street

Dear Dan Caplice:

STAT Analysis received 17 samples for the referenced project on 3/6/2015 1:00:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Craig Chawla
Project Manager

Client: K-Plus Engineering, LLC
Project: 24163, Olympia Oil, 5000 W. 41st Street
Work Order: 15030162 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15030162-001A	KP10 A		3/6/2015 9:10:00 AM	3/6/2015
15030162-002A	KP10 B		3/6/2015 9:15:00 AM	3/6/2015
15030162-003A	KP10 C		3/6/2015 9:05:00 AM	3/6/2015
15030162-004A	KP7 A		3/6/2015 8:55:00 AM	3/6/2015
15030162-005A	KP7 B		3/6/2015 9:00:00 AM	3/6/2015
15030162-006A	KP7 C		3/6/2015 9:05:00 AM	3/6/2015
15030162-007A	KP12 A		3/6/2015 9:25:00 AM	3/6/2015
15030162-008A	KP12 B		3/6/2015 9:30:00 AM	3/6/2015
15030162-009A	KP12 C		3/6/2015 9:35:00 AM	3/6/2015
15030162-010A	KP13 A		3/6/2015 9:50:00 AM	3/6/2015
15030162-011A	KP13 B		3/6/2015 9:45:00 AM	3/6/2015
15030162-012A	KP13 C		3/6/2015 9:40:00 AM	3/6/2015
15030162-013A	KP2 A		3/6/2015 11:10:00 AM	3/6/2015
15030162-014A	KP2 B		3/6/2015 11:15:00 AM	3/6/2015
15030162-015A	KP3 A		3/6/2015 11:50:00 AM	3/6/2015
15030162-016A	KP4 A		3/6/2015 11:30:00 AM	3/6/2015
15030162-017A	KP1 A		3/6/2015 11:00:00 AM	3/6/2015

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2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: March 09, 2015
Date Printed: March 09, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24163, Olympia Oil, 5000 W. 41st Street **Work Order:** 15030162 Revision 0

Lab ID: 15030162-001 **Collection Date:** 3/6/2015 9:10:00 AM
Client Sample ID: KP10 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	400	19		mg/Kg-dry	50	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	14.2	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-002 **Collection Date:** 3/6/2015 9:15:00 AM
Client Sample ID: KP10 B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	3/6/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	17.4	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-003 **Collection Date:** 3/6/2015 9:05:00 AM
Client Sample ID: KP10 C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	3/6/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	15.4	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-004 **Collection Date:** 3/6/2015 8:55:00 AM
Client Sample ID: KP7 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	520	19		mg/Kg-dry	50	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	14.9	0.2	*	wt%	1	3/9/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Date Reported: March 09, 2015
Date Printed: March 09, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24163, Olympia Oil, 5000 W. 41st Street **Work Order:** 15030162 Revision 0

Lab ID: 15030162-005 **Collection Date:** 3/6/2015 9:00:00 AM
Client Sample ID: KP7 B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	3/6/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	17.0	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-006 **Collection Date:** 3/6/2015 9:05:00 AM
Client Sample ID: KP7 C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	3/6/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	17.2	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-007 **Collection Date:** 3/6/2015 9:25:00 AM
Client Sample ID: KP12 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	460	20		mg/Kg-dry	50	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	16.7	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-008 **Collection Date:** 3/6/2015 9:30:00 AM
Client Sample ID: KP12 B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	100	4.1		mg/Kg-dry	10	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	19.7	0.2	*	wt%	1	3/9/2015

Qualifiers:
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J - Analyte detected below quantitation limits
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RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Date Reported: March 09, 2015
Date Printed: March 09, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24163, Olympia Oil, 5000 W. 41st Street **Work Order:** 15030162 Revision 0

Lab ID: 15030162-009 **Collection Date:** 3/6/2015 9:35:00 AM
Client Sample ID: KP12 C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	3/6/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	15.7	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-010 **Collection Date:** 3/6/2015 9:50:00 AM
Client Sample ID: KP13 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	690	36		mg/Kg-dry	100	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	9.1	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-011 **Collection Date:** 3/6/2015 9:45:00 AM
Client Sample ID: KP13 B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	3/6/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	16.9	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-012 **Collection Date:** 3/6/2015 9:40:00 AM
Client Sample ID: KP13 C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	2.2	0.37		mg/Kg-dry	1	3/7/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	10.3	0.2	*	wt%	1	3/9/2015

Qualifiers:
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HT - Sample received past holding time
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Date Reported: March 09, 2015
Date Printed: March 09, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24163, Olympia Oil, 5000 W. 41st Street **Work Order:** 15030162 Revision 0

Lab ID: 15030162-013 **Collection Date:** 3/6/2015 11:10:00 AM
Client Sample ID: KP2 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	90	7.9		mg/Kg-dry	20	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	17.3	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-014 **Collection Date:** 3/6/2015 11:15:00 AM
Client Sample ID: KP2 B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	3/7/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	17.5	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-015 **Collection Date:** 3/6/2015 11:50:00 AM
Client Sample ID: KP3 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.44		mg/Kg-dry	1	3/7/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	25.2	0.2	*	wt%	1	3/9/2015

Lab ID: 15030162-016 **Collection Date:** 3/6/2015 11:30:00 AM
Client Sample ID: KP4 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	2.8	0.41		mg/Kg-dry	1	3/7/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	19.1	0.2	*	wt%	1	3/9/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
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Date Reported: March 09, 2015
Date Printed: March 09, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24163, Olympia Oil, 5000 W. 41st Street **Work Order:** 15030162 Revision 0

Lab ID: 15030162-017 **Collection Date:** 3/6/2015 11:00:00 AM
Client Sample ID: KP1 A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **3/6/2015**		Analyst: **MEP**
Ethylene Glycol	78	8.2		mg/Kg-dry	20	3/9/2015
Percent Moisture	**D2974**			Prep Date: **3/6/2015**		Analyst: **RW**
Percent Moisture	19.6	0.2	*	wt%	1	3/9/2015

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
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e-mail address: STATinfo@STATAnalysis.com *AIHA, NVLAP and NELAP accredited*

CHAIN OF CUSTODY RECORD

Nº: 860826 **Page :** 1 **of** 1

Company: K+ Engineering
Project Number: 24163 Client Tracking No.:
Project Name: Olympic Oil
Project Location: 5000 W. 41st St.
Sampler(s): PM

P.O. No.:
Quote No.:

Report To: Dan Caplice Phone: 312-207-1600
Fax:
e-mail: Dan@kpus.com

QC Level: 1 2 3 4

Turn Around: ~~St~~ 24 hr
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	BTEX	Remarks	Lab No.:
KP 10 A	3/6/15	9:10	Soil		X		1	X		001
KP 10 B		9:05					1	X		002
KP 10 C		9:05					1	X		003
KP 7 A		8:55					1	X		004
KP 7 B		9:00					1	X		005
KP 7 C		9:05					1	X		006
KP 12 A		9:25					1	X		007
KP 12 B		9:30					1	X		008
KP 12 C		9:35					1	X		009
KP 13 A		9:50					1	X		010
KP 13 B		9:45					1	X		011
KP 13 C		9:40			X		1	X		012
KP 2 A		11:10		X			1	X		013
KP 2 B		11:15	✓	X			1	X		014
KP 3A		11:50			X		1	X		015
KP 4A	✓	11:30	✓		X		1	X		016

Relinquished by: (Signature) Date/Time: 3/6 1:00pm
Received by: (Signature) Date/Time: 3/6 15:00
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: 15080162

Received on Ice: Yes ☐ No ☑

Temperature: Amb °C

8 of 10

STAT Analysis Corporation

Sample Receipt Checklist

Client Name K-PLUS | Date and Time Received: 3/6/2015 1:00:00 PM

Work Order Number 15030162 | Received by: JOK

Checklist completed by: Signature 3/6/15 Date | Reviewed by: Initials 3/9/15 Date

Matrix: | Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature Ambient °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments: Sample ID Kp1 A was not listed on the COC but was received. Logged in according to sample container ID.

Client / Person contacted: Jessica Madsen | Date contacted: 3/9/15 | Contacted by: Frankc (email)

Response: Analyze Sample KP1A.

Frank Capoccia

From: Jessica Madsen [jessicam@kplus.com]
Sent: Monday, March 09, 2015 5:10 PM
To: Frank Capoccia
Subject: RE: Regarding 24163, Olympia Oil, 5000 W. 41st Street STAT 15030162

KP1A should have been included on the chain.
Please find the corrected chain attached.
Thank you!
Jessica

From: Dan Caplice
Sent: Monday, March 09, 2015 5:03 PM
To: Jessica Madsen
Subject: FW: Regarding 24163, Olympia Oil, 5000 W. 41st Street STAT 15030162
Importance: High

Please take a look and call Frank to clarify. Thanks.

K+
K-PLUS ENGINEERING
Daniel M. Caplice, P.E.
312.207.5700 | 312.207.1600 (Main)

From: Frank Capoccia [mailto:FCapoccia@STATAnalysis.com]
Sent: Monday, March 09, 2015 4:49 PM
To: Dan Caplice
Subject: Regarding 24163, Olympia Oil, 5000 W. 41st Street STAT 15030162

Hello Dan,

We received a sample labeled Kp1 A that was not on the COC. Would you like us to analyze it?

Thanks,

Frank Capoccia
Project Manager
STAT Analysis Corporation
(312)733-0551

STAT Analysis Corporation
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March 04, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15030019 Revision 0

RE: OA-SW-01-0227

Dear Dan Caplice:

STAT Analysis received 1 sample for the referenced project on 3/2/2015 5:25:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: March 04, 2015

Client: K-Plus Engineering, LLC
Project: OA-SW-01-0227
Work Order: 15030019 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15030019-001A	OA-SW-01-0227		2/27/2015 10:30:00 AM	3/2/2015

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Report Date: March 04, 2015
Print Date: March 04, 2015

ANALYTICAL RESULTS

Client:	K-Plus Engineering, LLC	**Client Sample ID:**	OA-SW-01-0227
Work Order:	15030019 Revision 0	**Tag Number:**	
Project:	OA-SW-01-0227	**Collection Date:**	2/27/2015 10:30:00 AM
Lab ID:	15030019-001A	**Matrix:**	Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **3/3/2015**		Analyst: **MEP**
Ethylene Glycol	56000	2000		mg/L	200	3/3/2015

Qualifiers:

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- B - Analyte detected in the associated Method Blank
- HT - Sample received past holding time
- * - Non-accredited parameter
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- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H - Holding time exceeded

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e-mail address: STATinfo@STATAnalysis.com *AIHA, NVLAP and NELAP accredited*

CHAIN OF CUSTODY RECORD

N°: _____ **Page :** 1 **of** 1

Company: Ut Engineering
Project Number: Client Tracking No.:
Project Name:
Project Location:
Sampler(s):
Report To: Phone:
Fax:
QC Level: 1 2 3 4 e-mail:

P.O. No.:
Quote No.:

Tyco (Ann Harbor)

Turn Around: 24 hr.
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
QA-SW-01-0227	2/27	10:30	water	X			1	5	001

Relinquished by: (Signature) Date/Time: 3/2/2015
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time: 3/2/15 17:25
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: 15030019

Received on Ice: Yes [✓] No [ ]

Temperature: 26 °C

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **K-PLUS** Date and Time Received: **3/2/2015 5:25:00 PM**

Work Order Number **15030019** Received by: **JOK**

Checklist completed by: _____ 3/2/15 Reviewed by: _____ 3/3/15
Signature Date Initials Date

Matrix: Carrier name STAT Analysis

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 2.6 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☒	No ☒
Water - Samples pH checked?	Yes ☒	No ☒	Checked by: _____
Water - Samples properly preserved?	Yes ☒	No ☒	pH Adjusted? _____

Any No response must be detailed in the comments section below.

Comments: _____

Client / Person contacted: _____ Date contacted: _____ Contacted by: _____

Response: _____

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

February 26, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15020573 Revision 0

RE: Olympic Oil, Cicero

Dear Dan Caplice:

STAT Analysis received 1 sample for the referenced project on 2/26/2015 11:00:00 AM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: February 26, 2015

Client: K-Plus Engineering, LLC
Project: Olympic Oil, Cicero
Work Order: 15020573 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15020573-001A	KP5 MWA		2/26/2015 10:00:00 AM	2/26/2015

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Report Date: February 26, 2015
Print Date: February 26, 2015

ANALYTICAL RESULTS

Client:	K-Plus Engineering, LLC	**Client Sample ID:**	KP5 MWA
Work Order:	15020573 Revision 0	**Tag Number:**	
Project:	Olympic Oil, Cicero	**Collection Date:**	2/26/2015 10:00:00 AM
Lab ID:	15020573-001A	**Matrix:**	Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/26/2015**		Analyst: **MEP**
Ethylene Glycol	480	10		mg/L	1	2/26/2015

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
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e-mail address: STATinfo@STATAnalysis.com ***AIHA, NVLAP and NELAP accredited***

CHAIN OF CUSTODY RECORD

Nº: 860674 **Page :** 1 of 1

Company: L-Plus
Project Number: Client Tracking No.:
Project Name: Olympic Oil
Project Location: Cicero
Sampler(s): PM
Report To: Dan Caplice Phone: 312-207-1600
Fax:
e-mail: DanOlplus.com
QC Level: 1 ____ 2 ____ 3 ____ 4 ____

P.O. No.:
Quote No.:

Turn Around: 12 hr
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Glycol (Anti-freeze)	Remarks	Lab No.:
Leps MW A	2/26	10:00	water				1	X		001

Relinquished by: (Signature) Date/Time: 2/26
Received by: (Signature) Date/Time: 2/26/15 1102 am
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Preservation Code: A = None B = HNO_3 C = NaOH D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: ~~15020562~~ ~~15020573~~

Received on Ice: Yes (X) No ( )

Temperature: 9.0 °C

15020573

STAT Analysis Corporation

Sample Receipt Checklist

Client Name **K-PLUS**

Date and Time Received: **2/26/2015 11:00:00 AM**

Work Order Number **15020573**

Received by: VBY

Checklist completed by: _____ 2/26/15 Reviewed by: _____ 2/26/2015

Signature Date Initials Date

Matrix: Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 9 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by: _____
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted? _____

Any No response must be detailed in the comments section below.

Comments: _____

Client / Person contacted: _____ Date contacted: _____ Contacted by: _____

Response: _____

STAT Analysis Corporation
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February 26, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15020562 Revision 0

RE: 25111, Olympic Oil, Stickney

Dear Dan Caplice:

STAT Analysis received 19 samples for the referenced project on 2/25/2015 4:02:00 PM. The analytical results are presented in the following report.

This is a preliminary report that contains incomplete data or data that has not been fully validated. Caution should be exercised in the use of any data presented as final reported results may not reflect the values presented.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: February 26, 2015

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney
Work Order: 15020562 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15020562-001A	KP9A			2/25/2015
15020562-002A	KP9B			2/25/2015
15020562-003A	KP9C			2/25/2015
15020562-004A	KP8A			2/25/2015
15020562-005A	KP8B			2/25/2015
15020562-006A	KP8C			2/25/2015
15020562-007A	KP11A			2/25/2015
15020562-008A	KP11B			2/25/2015
15020562-009A	KP11C			2/25/2015
15020562-010A	OA-SS-04-0225			2/25/2015
15020562-011A	OA-SW-02-0225			2/25/2015
15020562-012A	OA-SW-01-0225			2/25/2015
15020562-013A	MW10			2/25/2015
15020562-014A	KP5A			2/25/2015
15020562-015A	KP5B			2/25/2015
15020562-016A	KP5C			2/25/2015
15020562-017A	KP6A			2/25/2015
15020562-018A	KP6B			2/25/2015
15020562-019A	KP9W			2/25/2015

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
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ANALYTICAL RESULTS

Date Printed: February 26, 2015

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney **Work Order:** 15020562 Revision 0

Lab ID: 15020562-001 **Collection Date:**
Client Sample ID: KP9A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.41		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	19.4	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-011 **Collection Date:**
Client Sample ID: OA-SW-02-0225 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	10		mg/L	1	2/25/2015

Lab ID: 15020562-012 **Collection Date:**
Client Sample ID: OA-SW-01-0225 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	10		mg/L	1	2/25/2015

Lab ID: 15020562-013 **Collection Date:**
Client Sample ID: MW10 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	4200	500		mg/L	50	2/26/2015

Lab ID: 15020562-019 **Collection Date:**
Client Sample ID: KP9W **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	360	10		mg/L	1	2/25/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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CHAIN OF CUSTODY RECORD

№: 856882 **Page :** ____ **of** ____

Company: K-PLUS
Project Number: 25111 Client Tracking No.:
Project Name: Olympic 91
Project Location: Stickney
Sampler(s): Jessica M.
Report To: ____ Phone: 312-207-1600
Fax:
QC Level: 1 ____ 2 ____ 3 ____ 4 ____ e-mail: DAW@kplus.com

P.O. No.:
Quote No.:

Turn Around:
Results Needed:
/ / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
KP9A		9:00	Soil	X					001
KP9B		9:00		X					002
KP9C		9:00		X					003
KP8A		11:40		X					004
KP8B		11:40		X					005
KP8C		11:40		X					006
KP11A									007
KP11B									008
KP11C									009
QA-SS-01-0225			Soil						010
QA-SW-02-0225			W						011
QA-SW-01-0225			W						012
MW10			W						013
KP5A									014
KP5B									015
KP5C									016
KP6A			Soil						017
KP7A		2:00	Soil						018

Relinquished by: (Signature) Date/Time: 2/25/15 1602
Received by: (Signature) Date/Time: 2/25/15 16:02
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Preservation Code: A = None B = HNO_3 C = NaOH D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: 15020562

Received on Ice: Yes ☑ No ☐

Temperature: 2.3 °C

STAT Analysis Corporation

Sample Receipt Checklist

Client Name K-PLUS | Date and Time Received: 2/25/2015 4:02:00 PM

Work Order Number 15020562 | Received by: JOK

Checklist completed by: _____ 2/25/15 | Reviewed by: FC 2/26/15

Signature / Date | Initials / Date

Matrix: | Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 2.3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments: Sample ID KP7W was received but not listed on the COC, logged in according to sample container ID. COC had sample ID KP6A duplicated on the COC but sample container ID KP6A and KP6B were received; logged in according to sample container ID.

Client / Person contacted: Dan Caplice | Date contacted: 2/26/15 | Contacted by: Frank C (email)

Response: Corrected COC received via email 2/26/15

STAT Analysis Corporation
2242 W. Harrison Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386
e-mail address: STATinfo@STATAnalysis.com *AIHA, NVLAP and NELAP accredited*

CHAIN OF CUSTODY RECORD

Nº: 856882 **Page :** of

Company: K-PLUS
Project Number: 25111 Client Tracking No.:
Project Name: Olympic Q1
Project Location: Stickney
Sampler(s): Jessica M.
Report To: Phone: 312-207-1600
Fax:
QC Level: 1 2 3 4 e-mail: DW@kplus.com

P.O. No.:
Quote No.:

Turn Around:
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
KP9A		9:00	Soil	X					001
KP9B		9:00		X					002
KP9C		9:00		X					003
KP8A		11:40		X					004
KP8B		11:40		X					005
KP8C		11:40		X					006
KP11A									007
KP11B									008
KP11C									009
QA-SS-Q1-0225			Soil						010
QA-SW-02-0225			W						011
QA-SW-01-0225			W						012
MW10			W						013
KP5A									014
KP5B									015
KP5C									016
KP6A			Soil						017
KP6B		2:00	Soil						018
KP9w									

X

Relinquished by: (Signature) Date/Time: 2/25/15 1600
Received by: (Signature) Date/Time: 2/25/15 16:02
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Laboratory Work Order No.: 15020562

Received on Ice: Yes ✓ No

Temperature: 2.3 °C

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

6 of 6

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

February 27, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15020562 Revision 0

RE: 25111, Olympic Oil, Stickney

Dear Dan Caplice:

STAT Analysis received 19 samples for the referenced project on 2/25/2015 4:02:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: February 27, 2015

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney
Work Order: 15020562 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15020562-001A	KP9A			2/25/2015
15020562-002A	KP9B			2/25/2015
15020562-003A	KP9C			2/25/2015
15020562-004A	KP8A			2/25/2015
15020562-005A	KP8B			2/25/2015
15020562-006A	KP8C			2/25/2015
15020562-007A	KP11A			2/25/2015
15020562-008A	KP11B			2/25/2015
15020562-009A	KP11C			2/25/2015
15020562-010A	OA-SS-04-0225			2/25/2015
15020562-011A	OA-SW-02-0225			2/25/2015
15020562-012A	OA-SW-01-0225			2/25/2015
15020562-013A	MW10			2/25/2015
15020562-014A	KP5A			2/25/2015
15020562-015A	KP5B			2/25/2015
15020562-016A	KP5C			2/25/2015
15020562-017A	KP6A			2/25/2015
15020562-018A	KP6B			2/25/2015
15020562-019A	KP9W			2/25/2015

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2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: February 27, 2015
Date Printed: February 27, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney **Work Order:** 15020562 Revision 0

Lab ID: 15020562-001 **Collection Date:**
Client Sample ID: KP9A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.41		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	19.4	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-002 **Collection Date:**
Client Sample ID: KP9B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	11	0.40		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	18.7	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-003 **Collection Date:**
Client Sample ID: KP9C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	16.4	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-004 **Collection Date:**
Client Sample ID: KP8A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	17.9	0.2	*	wt%	1	2/26/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: February 27, 2015
Date Printed: February 27, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney **Work Order:** 15020562 Revision 0

Lab ID: 15020562-005 **Collection Date:**
Client Sample ID: KP8B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	15.9	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-006 **Collection Date:**
Client Sample ID: KP8C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	17.0	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-007 **Collection Date:**
Client Sample ID: KP11A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	3.3	0.40		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	17.8	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-008 **Collection Date:**
Client Sample ID: KP11B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	16.9	0.2	*	wt%	1	2/26/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: February 27, 2015
Date Printed: February 27, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney **Work Order:** 15020562 Revision 0

Lab ID: 15020562-009 **Collection Date:**
Client Sample ID: KP11C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	16.3	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-010 **Collection Date:**
Client Sample ID: OA-SS-04-0225 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	4500	380		mg/Kg-dry	1000	2/27/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	13.6	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-011 **Collection Date:**
Client Sample ID: OA-SW-02-0225 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	10		mg/L	1	2/25/2015

Lab ID: 15020562-012 **Collection Date:**
Client Sample ID: OA-SW-01-0225 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	10		mg/L	1	2/25/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Date Reported: February 27, 2015
Date Printed: February 27, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney **Work Order:** 15020562 Revision 0

Lab ID: 15020562-013 **Collection Date:**
Client Sample ID: MW10 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	4200	500		mg/L	50	2/26/2015

Lab ID: 15020562-014 **Collection Date:**
Client Sample ID: KP5A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	4.1	0.39		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	16.0	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-015 **Collection Date:**
Client Sample ID: KP5B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	16.5	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-016 **Collection Date:**
Client Sample ID: KP5C **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.38		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	15.0	0.2	*	wt%	1	2/26/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: February 27, 2015
Date Printed: February 27, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 25111, Olympic Oil, Stickney **Work Order:** 15020562 Revision 0

Lab ID: 15020562-017 **Collection Date:**
Client Sample ID: KP6A **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.40		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	17.6	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-018 **Collection Date:**
Client Sample ID: KP6B **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	ND	0.39		mg/Kg-dry	1	2/26/2015
Percent Moisture	**D2974**			Prep Date: **2/25/2015**		Analyst: **RW**
Percent Moisture	15.8	0.2	*	wt%	1	2/26/2015

Lab ID: 15020562-019 **Collection Date:**
Client Sample ID: KP9W **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3510C)**			Prep Date: **2/25/2015**		Analyst: **MEP**
Ethylene Glycol	360	10		mg/L	1	2/25/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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CHAIN OF CUSTODY RECORD

No: 856882 **Page :** ____ **of** ____

Company: K-PLUS
Project Number: 25111 Client Tracking No.:
Project Name: Olympic Oil
Project Location: Stickney
Sampler(s): Jessica M.
Report To: ____ Phone: 312-207-1600
Fax:
QC Level: 1 ____ 2 ____ 3 ____ 4 ____ e-mail: DAW@kplus.com

P.O. No.:
Quote No.:

Turn Around:
Results Needed:
/ / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
KP9A		9:00	Soil	X					001
KP9B		9:00		X					002
KP9C		9:00		X					003
KP8A		11:40		X					004
KP8B		11:40		X					005
KP8C		11:40		X					006
KP11A									007
KP11B									008
KP11C									009
OA-SS-01-0225			Soil						010
OA-SW-02-0225			W						011
OA-SW-01-0225			W						012
MW10			W						013
KPSA									014
KPSB									015
KPSC									016
KPGA			Soil						017
KPNA		2:00	Soil						018

Relinquished by: (Signature) Date/Time: 2/25/15 16:02
Received by: (Signature) Date/Time: 2/25/15 16:02
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: 15020562

Received on Ice: Yes ☑ No ☐

Temperature: 2.3 °C

84 of 160

STAT Analysis Corporation

Sample Receipt Checklist

Client Name K-PLUS | Date and Time Received: 2/25/2015 4:02:00 PM

Work Order Number 15020562 | Received by: JOK

Checklist completed by: [signature] 2/25/15 (Signature / Date) | Reviewed by: JC 2/26/15 (Initials / Date)

Matrix: | Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 2.3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments: Sample ID KP7W was received but not listed on the COC, logged in according to sample container ID. COC had sample ID KP6A duplicated on the COC but sample container ID KP6A and KP6B were received; logged in according to sample container ID.

Client / Person contacted: Dan Caprice | Date contacted: 2/26/15 | Contacted by: Frank C (email)

Response: Corrected COC received via email 2/26/15

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e-mail address: STATinfo@STATAnalysis.com *AIHA, NVLAP and NELAP accredited*

CHAIN OF CUSTODY RECORD

Nº: 856882 **Page :** of

Company: K-PLUS
Project Number: 25111 Client Tracking No.:
Project Name: Olympic Q1
Project Location: Stickney
Sampler(s): Jessica M.
Report To: Phone: 312-207-1600
Fax:
QC Level: 1 2 3 4 e-mail: DW@kplus.com

P.O. No.:
Quote No.:

Turn Around:
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
KP9A		9:00	Soil	X					001
KP9B		9:00		X					002
KP9C		9:00		X					003
KP8A		11:40		X					004
KP8B		11:40		X					005
KP8C		11:40		X					006
KP11A									007
KP11B									008
KP11C									009
QA-SS-Q1-0225			Soil						010
QA-SW-02-0225			W						011
QA-SW-01-0225			W						012
MW10			W						013
KP5A									014
KP5B									015
KP5C									016
KP6A			Soil						017
KP6B		2:00	Soil						018
KP9w									

X

Relinquished by: (Signature) Date/Time: 2/25/15 1600
Received by: (Signature) Date/Time: 2/25/15 16:02
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Laboratory Work Order No.: 15020562

Received on Ice: Yes ☑ No ☐

Temperature: 2.3 °C

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

STAT Analysis Corporation
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February 23, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15020454 Revision 0

RE: 24148, Olympic Oil, Stickney

Dear Jessica Madsen:

STAT Analysis received 5 samples for the referenced project on 2/19/2015 2:10:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Craig Chawla
Project Manager

STAT Analysis Corporation

Date: February 23, 2015

Client: K-Plus Engineering, LLC
Project: 24148, Olympic Oil, Stickney
Work Order: 15020454 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15020454-001A	S01		2/19/2015 1:00:00 PM	2/19/2015
15020454-002A	S01 - Duplicate		2/19/2015 1:00:00 PM	2/19/2015
15020454-003A	S02		2/19/2015 1:30:00 PM	2/19/2015
15020454-004A	S03 - Soil		2/19/2015 1:30:00 PM	2/19/2015
15020454-005A	S04		2/19/2015 1:45:00 PM	2/19/2015

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Accreditations:IEPA ELAP 100445;ORELAP IL300001;AIHA-LAP, LLC 101160;NVLAP LabCode 101202-0

Date Reported: February 23, 2015
Date Printed: February 23, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: 24148, Olympic Oil, Stickney **Work Order:** 15020454 Revision 0

Lab ID: 15020454-001 **Collection Date:** 2/19/2015 1:00:00 PM
Client Sample ID: S01 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3580A)**			Prep Date: **2/19/2015**		Analyst: **MEP**
Ethylene Glycol	23000	66		mg/L	200	2/20/2015

Lab ID: 15020454-002 **Collection Date:** 2/19/2015 1:00:00 PM
Client Sample ID: S01 - Duplicate **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015**			Prep Date:		Analyst: **MEP**
Ethylene Glycol	11000	1000		mg/L	100	2/23/2015

Lab ID: 15020454-003 **Collection Date:** 2/19/2015 1:30:00 PM
Client Sample ID: S02 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3580A)**			Prep Date: **2/19/2015**		Analyst: **MEP**
Ethylene Glycol	43000	66		mg/L	200	2/20/2015

Lab ID: 15020454-004 **Collection Date:** 2/19/2015 1:30:00 PM
Client Sample ID: S03 - Soil **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/19/2015**		Analyst: **MEP**
Ethylene Glycol	830	81		mg/Kg-dry	200	2/20/2015
Percent Moisture	**D2974**			Prep Date: **2/19/2015**		Analyst: **RW**
Percent Moisture	19.0	0.2	*	wt%	1	2/20/2015

Lab ID: 15020454-005 **Collection Date:** 2/19/2015 1:45:00 PM
Client Sample ID: S04 **Matrix:** Water

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3580A)**			Prep Date: **2/19/2015**		Analyst: **MEP**
Ethylene Glycol	9100	66		mg/L	200	2/20/2015

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

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e-mail address: STATinfo@STATAnalysis.com ***AIHA, NVLAP and NELAP accredited***

CHAIN OF CUSTODY RECORD

Nº: 861480 **Page :** 1 of 1

Company: K-Plus Eng.
Project Number: 24148 Client Tracking No.:
Project Name: Olympic Oil
Project Location: Stickney
Sampler(s): Jessica
Report To: Phone:
Fax:
QC Level: 1 2 3 4 e-mail:

P.O. No.:
Quote No.:

Ethylene glycol

Turn Around: 24hr
Results Needed:
/ / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Remarks	Lab No.:
S01	2/19	1:00	W		✓		1		001
S01-duplicate		1:00	W		✓		1		002
S02		1:30	W		✓		1		003
S03-Soil		1:30	S		✓		1		004
S04-		1:45	W		✓		1		005

Relinquished by: (Signature) Jessica Nelson Date/Time: 2/19/15 1410
Received by: (Signature) Date/Time: 2/19/15 1410
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments:

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.:
15020454

Received on Ice: Yes ✓ No
Temperature: 4.9 °C

STAT Analysis Corporation

Sample Receipt Checklist

Client Name K-PLUS | Date and Time Received: 2/19/2015 2:10:00 PM

Work Order Number 15020454 | Received by: JOK

Checklist completed by: _____ 2/19/15 (Signature / Date) | Reviewed by: FC 2/19/15 (Initials / Date)

Matrix: | Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 4.9 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments:

Client / Person contacted: | Date contacted: | Contacted by:

Response:

STAT Analysis Corporation
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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditations: IEPA ELAP 100445; ORELAP IL300001; AIHA-LAP, LLC 101160; NVLAP LabCode 101202-0

February 20, 2015

K-Plus Engineering, LLC
15 Spinning Wheel Drive
Hinsdale, IL 60521

Telephone: (312) 207-1600
Fax: (312) 831-2191

Analytical Report for STAT Work Order: 15020446 Revision 0

RE: Olympic Oil, 5000 West 41st Street. Cicero, IL

Dear Dan Caplice:

STAT Analysis received 5 samples for the referenced project on 2/18/2015 4:10:00 PM. The analytical results are presented in the following report.

All analyses were performed in accordance with the requirements of 35 IAC Part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Frank Capoccia
Project Manager

Client: K-Plus Engineering, LLC
Project: Olympic Oil, 5000 West 41st Street. Cicero, IL
Work Order: 15020446 Revision 0

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15020446-001A	OA-SW-0211-01		2/11/2015 11:30:00 AM	2/18/2015
15020446-002A	OA-SW-0213-01		2/11/2015 11:30:00 AM	2/18/2015
15020446-003A	OA-SW-0211-02		2/11/2015 1:10:00 PM	2/18/2015
15020446-003B	OA-SW-0211-02		2/11/2015 1:10:00 PM	2/18/2015
15020446-004A	OA-SG-0212-01		2/11/2015 3:15:00 PM	2/18/2015
15020446-004B	OA-SG-0212-01		2/11/2015 3:15:00 PM	2/18/2015
15020446-005A	OA-SG-0212-02		2/11/2015 3:47:00 PM	2/18/2015
15020446-005B	OA-SG-0212-02		2/11/2015 3:47:00 PM	2/18/2015

STAT Analysis Corporation
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Date Reported: February 20, 2015
Date Printed: February 20, 2015

ANALYTICAL RESULTS

Client: K-Plus Engineering, LLC
Project: Olympic Oil, 5000 West 41st Street. Cicero, IL **Work Order:** 15020446 Revision 0

Lab ID: 15020446-004 **Collection Date:** 2/11/2015 3:15:00 PM
Client Sample ID: OA-SG-0212-01 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/19/2015**		Analyst: **MEP**
Ethylene Glycol	580	80		mg/Kg-dry	200	2/20/2015
Percent Moisture	**D2974**			Prep Date: **2/19/2015**		Analyst: **RW**
Percent Moisture	18.0	0.2	*	wt%	1	2/19/2015

Lab ID: 15020446-005 **Collection Date:** 2/11/2015 3:47:00 PM
Client Sample ID: OA-SG-0212-02 **Matrix:** Soil

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Glycols, Total	**SW8015 (SW3550B)**			Prep Date: **2/19/2015**		Analyst: **MEP**
Ethylene Glycol	380	85		mg/Kg-dry	200	2/20/2015
Percent Moisture	**D2974**			Prep Date: **2/19/2015**		Analyst: **RW**
Percent Moisture	23.4	0.2	*	wt%	1	2/19/2015

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quantitation limits
- B - Analyte detected in the associated Method Blank
- HT - Sample received past holding time
- * - Non-accredited parameter
- RL - Reporting / Quantitation Limit for the analysis
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- H - Holding time exceeded

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CHAIN OF CUSTODY RECORD

N°: _____ **Page :** 1 **of** 1

Company: K-Plus Engineering, LLC
Project Number: Client Tracking No.:
Project Name: Olympic Oil
Project Location: 5000 West 41st Street, Cicero, IL
Sampler(s): Matt Villicana (TetraTech)
Report To: Dan Caplice Phone:
Fax:
QC Level: 1 ____ 2 ____ 3 ____ 4 ____ e-mail:

P.O. No.:
Quote No.:

Turn Around: 24 HR.
Results Needed: / / am/pm

Client Sample Number/Description:	Date Taken	Time Taken	Matrix	Comp.	Grab	Preserv.	No. of Containers	Ethylene Glycol (8015B)	VOCs (8260B)	SVOCs (8270C)	TPH (DRO, GRO, ERO)	Remarks	Lab No.:
OA-SW-0211-01	02/11/2015	1130	W		X	HCl	5						001
OA-SW-0213-01	02/11/2015	1130	W		X	HCl	5						002
OA-SW-0211-02	02/11/2015	1310	W		X	HCl	5						003
OA-SG-0212-01	02/11/2015	1526	Soil		X		5	X					004
OA-SG-0212-02	02/11/2015	1547	Soil		X		5	X					005

Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time: 2/18/15 1610
Relinquished by: (Signature) Date/Time: 2/18/15 1610
Received by: (Signature) Date/Time: 2/18/15 1610
Relinquished by: (Signature) Date/Time:
Received by: (Signature) Date/Time:

Comments: Hold all other samples.

Preservation Code: A = None B = HNO_3 C = NaOH
D = H_2SO_4 E = HCl F = 5035/EnCore G = Other

Laboratory Work Order No.: 15020446

Received on Ice: Yes [X] No [ ]

Temperature: 3.3 °C

STAT Analysis Corporation

Sample Receipt Checklist

Client Name K-PLUS | Date and Time Received: 2/18/2015 4:10:00 PM

Work Order Number 15020446 | Received by: DO

Checklist completed by: [signature] 2/18/15 (Signature / Date) | Reviewed by: FC 2/19/15 (Initials / Date)

Matrix: | Carrier name STAT Analysis

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☐	No ☑	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature 3.3 °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments: *Samples OA-SW-0211-01, OA-SW-0213-01 and OA-SW-0211-02 were frozen and receeived broken. Frozen samples were transferred from 1L Amber Glass into a 32-02 clear glass.

**Only two VOA HCl for Sample OA-SW-0211-02 were received intact.

Client / Person contacted: | Date contacted: | Contacted by:

Response: ONLY SCPL SAMPLES WERE ANALYZED.

APPENDIX 5

INSPECTOR QUALIFICATIONS

JESSICA MADSEN

Title: *Scientist*

Education:

BS, Environmental Health Sciences, Illinois State University, Normal, IL

Licenses/Certifications:

AHERA Building Inspector: IL

OSHA 40 Hour HazMat Training

OSHA 8-hour Hazardous Waste Training Refresher

HM-126F Safe HazMat Transportation Training

Erosion and Sediment Control Course 8-hour AIA Registered.

Areas of Expertise:

- *Phase I ESA*
- *LUST*
- *SRP*
- *Site Investigation*
- *TACO*
- *Remediation*

Ms. Madsen combines scientific expertise and business management skills to meet the due diligence needs for a variety of clients in a professional, time efficient and cost effective manner. Her educational training, project management experience, and communication skills provide a solid foundation to meet the environmental consulting needs of a diverse client base, including customers in banking, real estate development, government and industrial settings. At K-Plus, Ms. Madsen provides her customers with the tools required to make productive environmental decisions.

Ms. Madsen has been in the environmental consulting industry for at least the past ten years, which has cultivated a deep understanding of environmental issues within a business-conscious framework. During her tenure, she has developed outstanding research, field work, data interpretation, technical writing and communication skills, and has been recognized in scientific, government and business publications. Her training includes a bachelors degree in environmental sciences from Illinois State University, where her studies included courses in; Environmental Health Practices, Health Data Analysis, Water Quality and Treatment, Waste Management Practices, Environmental Toxicology, Food Protection, Control of Institutional Environments, Pollution Prevention, Occupational Health, Epidemiology, Decision Processes, as well as, complete courses of study in Chemistry, Physics, Geology, Human Anatomy and Physiology and Biology. Ms. Madsen's extensive curriculum has provided her with a broad base of technical scientific knowledge.

Since becoming an environmental professional, Ms. Madsen has conducted a variety of local and international site assessment activities, including property inspections (Phase I ESAs, TSAs, Phase I Updates and compliance assessments), soil and groundwater investigations, storage tank removals, abandonments and remediation activities. In connection with these tasks, Ms. Madsen has demonstrated her acute technical abilities by designing statistical analyses (including averaging and composite techniques) and modeling contaminant transport patterns, which has allowed her to successfully design and manage site closures in accordance with current federal, state and local environmental regulations.

DANIEL M. CAPLICE

Title: *President*

Education:

MM, Finance and Managerial Economics, J.L. Kellogg Graduate School of Management, Northwestern University

MPH, Industrial Hygiene and Safety Engineering, University of Illinois at Chicago

BS, Civil Engineering, University of Illinois, Urbana, IL

Licenses/Certifications:

Professional Engineer: IL, IN, IA, FL, KY, LA, MI, MN,MO, NC, OH, PA,SC, TX, and W,

AHERA Building Inspector: IL and IN

LUST Site Assessor: WI and IN

OSHA 40 Hour HazMat Training

OSHA 8-hour On-site Management & Supervisor Training

HM-126F Safe HazMat Transportation Training

Radon Detection Services

Corrective Actions for Ground Water Contamination

Mr. Caplice is a licensed professional engineer in 16 states with 28 years of environmental engineering and consulting experience. He has an in-depth understanding of local, state and federal regulations and has performed projects in accordance with CERCLA, RCRA, CWA/Oil Pollution Act, CAA, TSCA, and FIFRA requirements. His specialized areas of expertise are evaluation of contaminated properties, assessment of risk and endangerment, regulatory compliance and permitting, hazardous waste management, industrial processes, Brownfield development, and site management including investigation, remediation, construction management, and monitoring.

Currently, Mr. Caplice is President of K-Plus Engineering, a 19 year-old, full service, engineering and consulting company with offices in Illinois, Indiana, Wisconsin, North Carolina, California, and Colorado. As President, Mr. Caplice is responsible for managing and directing the company in addition to his ongoing work as an expert in environmental matters.

For the past 23 years, he has served as a consulting environmental engineer for numerous private, public, and non-profit institutions. His responsibilities have included designing and directing various projects, particularly voluntary cleanups of contaminated soil and ground water sites, underground storage tank remediations, and NPL evaluations, investigations, and cleanups. Mr. Caplice has worked extensively on the investigation and cleanup of numerous active and abandoned industrial facilities, landfills, and other waste sites. He has also served as the project manager or senior technical advisor on hundreds of Phase I and Phase II Environmental Assessments at a multitude of sites, from small, undeveloped parcels of property to multi-location industrial facilities. Finally, Mr. Caplice has served as a technical expert on numerous State and Federal cases pertaining to the investigation and cleanup of contaminated properties as well as industrial hygiene and safety related issues pertaining to the investigation and remediation of contaminated property.

Mr. Caplice also has experience in the regulatory analysis of projects for compliance with federal and state environmental regulations, guidance, protocols, and procedures. His environmental regulatory experience includes evaluating compliance of private party actions, reviewing and preparing comments on proposed environmental laws and administrative rules, reviewing site documents and preparing detailed comments, and serving as a technical expert in various environmental cases. Mr. Caplice is a also regular speaker at environmental conferences and seminars.

Prior to joining K-Plus, Mr. Caplice served in several capacities for the USEPA, Region 5, including Manager of a Superfund unit responsible for sites in Illinois and Indiana, and Manager of the Pre-Remedial Unit that was responsible for the investigation and assessment of abandoned waste sites (CERCLIS sites) for possible inclusion on the Superfund National Priorities List. While at the USEPA, he also regularly represented the Agency at the International Joint Commission on Water Quality in the Great Lakes.